

**BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA**

DOCKET NO. 2011-271-E

In the Matter of:)	
)	
Application of Duke Energy Carolinas,)	REBUTTAL TESTIMONY OF
LLC for Authority to Adjust and Increase)	JEFFREY R. BAILEY FOR
Its Electric Rates and Charges)	DUKE ENERGY CAROLINAS, LLC
)	
)	

INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND CURRENT POSITION.

A. My name is Jeffrey R. Bailey, and my business address is 1000 E. Main Street, Plainfield, Indiana 46168. I am Director, Pricing and Analysis for Duke Energy Carolinas, LLC (“Duke Energy Carolinas” or the “Company”) and its affiliated utility operating companies.

Q. WHAT ARE YOUR RESPONSIBILITIES AS DIRECTOR, PRICING AND ANALYSIS?

A. My primary responsibility is to provide rate analysis and to develop the rates and charges contained in tariffs and contracts for gas or electric service for Duke Energy Corporation’s (“Duke Energy”) utility operating companies, including Duke Energy Carolinas.

Q. DID YOU PROVIDE DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes. My education and experience are summarized in my direct testimony.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. My rebuttal testimony will respond to the South Carolina Energy Users Committee (“SCEUC”) Witness O’Donnell with regard to coincident peak (“CP”) pricing, increased interruptible credits, the Company’s proposed voltage discount and the proposed increase allocated to the Company’s Rate MP tariff.

Q. PLEASE DESCRIBE THE EXHIBIT ATTACHED TO YOUR TESTIMONY.

1 A. Bailey Rebuttal Exhibit 1 illustrates that the proposed increases to the rate
2 components of Rate MP are reasonable.

3 **Q. WAS BAILEY EXHIBIT 1 PREPARED BY YOU OR UNDER YOUR**
4 **SUPERVISION?**

5 A. Yes, it was.

6 **II. RATE DESIGN AND TARIFF ISSUES**

7 ***Coincident Peak Pricing (“CP”)***

8 **Q. PLEASE DESCRIBE THE CP RATE PROPOSED BY SCEUC WITNESS**
9 **O’DONNELL.**

10 A. In a typical industrial / commercial rate, the customer’s maximum non-coincident
11 demand during the billing period is used as the basis for the billing of demand
12 charges. Or in the case of a time-of-use rate, the maximum demand during the
13 on-peak period is used for billing purposes. In the case of a coincident peak rate,
14 the customer’s demand at the time of the utility’s monthly system peak is used for
15 billing purposes.

16 **Q. WHAT CONCERNS DO YOU HAVE REGARDING THIS TYPE OF**
17 **RATE STRUCTURE?**

18 A. I acknowledge that these CP rates exist in the marketplace, however, it is my
19 judgment that such rates do not properly price the use of the Company’s
20 generating resources and therefore frustrate cost causation rate design principles.
21 Further, a CP rate would conflict with other products in the Company’s product
22 portfolio that are properly priced to influence peak demand reduction.

23 **Q. PLEASE ELABORATE.**

1 A. A CP rate as contemplated by Mr. O'Donnell is based on embedded costs, which
2 include all forms of generation from base load, intermediate, and peaking
3 capacity. An avoided cost rate is typically based upon the value of a combustion
4 turbine. The difference between these valuations is substantial, with the CP rate
5 credit for curtailability far exceeding the value of a combustion turbine.

6 **Q. WILL WITNESS O'DONNELL'S RECOMMENDATION DEFER THE**
7 **NEED FOR CAPACITY?**

8 A. A properly designed and priced peak reduction program will generally defer the
9 need for *peaking* capacity, not base load capacity. Where Witness O'Donnell's
10 argument falls short is his expectation that customers who respond to a CP rate,
11 and are able to curtail 20 to 30 hours per month, will defer the need for expensive,
12 base load generating capacity. In other words, Witness O'Donnell contends that
13 customers who utilize the Company's system better than 96% of the time will
14 defer generation designed to serve not only at peak times, but all of the other
15 hours of the year as well. This position does not comport with our experience.

16 **Q. MR. O'DONNELL RECOMMENDS ASSUMING PEAK LOAD**
17 **REDUCTIONS IN THE INITIAL DESIGN OF THE CP RATES. DO YOU**
18 **AGREE WITH THIS APPROACH?**

19 A. No, I do not. This approach assumes value creation before any value is genuinely
20 created. The Company prefers to design rates based on experience with customer
21 behavior to minimize the likelihood of unintended consequences for other
22 customers. Witness O'Donnell's approach would require the Company to
23 compensate customers before the first MW of load has been shifted. This

1 approach could create unreasonable subsidies for a subset of customers, and
2 increase the risk of free ridership where customers receive the benefit of lower
3 rates without shifting any load.

4 **Q. WHAT ARE YOUR CONCLUSTIONS REGARDING MR. O'DONNELL'S**
5 **CP RECOMMENDATIONS.**

6 A. My conclusion regarding Witness O'Donnell's recommendation is that it
7 produces an unreasonable subsidy to industrial customers that would not produce
8 the benefits claimed. I recommend that the CP rate proposals by Witness
9 O'Donnell be rejected.

10 *Interruptible Credits*

11 **Q. SCEUC WITNESS O'DONNELL FURTHER PROPOSES THAT DUKE**
12 **ENERGY CAROLINAS SHOULD INCREASE ITS CAPACITY-BASED**
13 **INTERRUPTIBLE CREDITS THROUGH ITS POWERSHARE**
14 **PROGRAMS TO BE BASED ON CURRENT AVOIDED COST TARIFF**
15 **RATES. IS THIS REASONABLE?**

16 A. Conceptually, the Company agrees with the idea of providing value to customers
17 in exchange for value received. In keeping with this principle, the Company bases
18 its avoided cost rates on the cost and optionality of a combustion turbine.
19 Because customers' participation in demand shifting programs generally cannot
20 fully duplicate the optionality of a combustion turbine, there should be some
21 discount relative to full avoided cost for programs with limited curtailability, like
22 PowerShare. The Company's Rate PP, cited by Mr. O'Donnell, is constructed
23 around the avoided cost of a combustion turbine, but to receive the full value of

1 the Company's avoided costs, the customer would have to consistently provide
2 kilowatt-hours ("kWh") during the course of the entire year.

3 **Q. WITNESS O'DONNELL ALSO SUGGESTS THAT A PROPOSED**
4 **INTERRUPTIBLE RATE BASED ON THE COMPANY'S AVOIDED**
5 **COST RATES SHOULD ALLOW CUSTOMERS TO CLAIM CREDITS**
6 **FOR INTERRUPTING THEMSELVES. PLEASE EXPLAIN THE**
7 **PROBLEMS WITH THIS CONCEPT.**

8 A. As I stated above, the Company has no opposition to conveying value to
9 customers in exchange for value received. However, of particular concern is Mr.
10 O'Donnell's comparison of a PowerShare 10/5 option that is predicated on 90
11 hours of curtailability versus his example that produces 250 hours. The two
12 products are not directly comparable because of the disparate hours. It makes
13 sense that a customer should be compensated more for additional curtailability.

14 The Company has put together products after extensive experience with
15 customers that suggest it is difficult for customers to interrupt beyond 200 hours.
16 A customer with 200 hours of curtailability is typically a customer whose
17 electricity costs are a substantial percentage of product cost (*e.g.*, the steel
18 industry) that are typically much higher than most customers. Nonetheless, the
19 Company is considering offering a program next year that offers credits to
20 customers based on approximately 200 hours of curtailability. This product
21 enhancement will increase credits to customers *in exchange for increased*
22 *curtailability.*

Time of Use Rates

Q. MR. O'DONNELL SUGGESTS THAT THE COMPANY SHOULD OFFER MORE ECONOMICAL TIME OF USE RATES TO TIE WITH ENERGY EFFICIENCY PROGRAMS. HOW DO YOU RESPOND?

A Mr. O'Donnell's recommendation does not provide enough specifics on which I can comment. However, the Company is always receptive to dialogue with our customers concerning rate structures that more fully reflect cost and convey mutual value.

Voltage Discount

Q. SCEUC WITNESS O'DONNELL RECOMMENDS THAT THE COMPANY BE REQUIRED TO OFFER TO SELL TRANSFORMATION EQUIPMENT AT NET BOOK VALUE (ORIGINAL PRICE LESS DEPRECIATED VALUE) AND THEN OFFER THESE CUSTOMERS THE SAME TRANSFORMATION DISCOUNT THE COMPANY IS NOW PROPOSING TO OFFER NEW CUSTOMERS. HOW DO YOU RESPOND?

A. In my judgment, this recommendation is inappropriate. Witness O'Donnell's recommendation would essentially result in confiscation of the Company's assets at substantially less than the revenue stream generated by such assets. If the Company ever engages in such a transaction, it should be at its discretion, and the terms of sale should be arrived at through an arms-length negotiation with appropriate consideration given to the regulated and / or market value of the assets.

1 terms of fixed cost recovery as the existing structure and avoids contributing any
2 distortions to the rate¹. This same method has been used in all recent Duke
3 Energy Carolinas' rate cases as a starting point prior to any design changes. More
4 specifically to Rate MP, major components of Rate MP are derived from Rate
5 OPT following its design, and the remaining demand charges are increased to
6 fulfill the necessary revenues for the rate. Rate MP was designed to approximate
7 the average increase to Rate OPT.

8 The Company re-filed Rate MP after correcting for an error in billing
9 determinants that distorted the demand charges. These changes result in all
10 current Rate MP customers receiving an increase at proposed rates of less than
11 14%, in line with Rate OPT. The Company has provided billing comparisons for
12 Rate MP to the Office of Regulatory Staff confirming the rate impacts. This rate
13 still provides benefit to participating Rate MP customers relative to Rate OPT.

14 Although I appreciate Mr. O'Donnell's concerns, the tables in his
15 testimony do not reflect the class impacts. He fails to recognize that the increases
16 shown in his table must be weighted by the revenue production for each rate
17 component and summed to arrive at a reasonable approximation of the class
18 impacts. For example, the 27.8% increased shown for on-peak demands each
19 contribute approximately 1% increase to total rate schedule revenue production².
20 Please see Bailey Rebuttal Exhibit 1 for further illustration. The calculations

¹ This method, among others, could be contrasted to an across-the-board increase where all components of the schedule are increased by the same percentage.

² For further illustration, assume that demand charges contribute 50% of the class revenue requirement. Assuming the increase is predominantly related to fixed costs, the attendant increase in the demand charges would be twice the average rate increase.

1 shown in this exhibit provide a more meaningful approximation of the true class
2 impacts.

3 **III. CONCLUSION**

4 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

5 **A.** Yes.

Duke Energy Carolinas LLC
Docket No. 2011-271-E
Proposed Billing Units and Revenue
For the test year ended December 31, 2008
Present Rate Schedule Effective 02/01/09

South Carolina Schedule MP(57,58) - Multiple Premises Commercial Customers										
MP GEN			Present Rate (10/1/2010)	Test Year Billing Units	Present Revenue	Proposed Rate	Proposed Billing Units	Proposed Revenue	Component Percent Increase	Rate Increase Contribution
1	Basic Facilities Charge		36.21	696	25,203	40.61	580	23,555	12.15%	0.03%
2										
3	Interconnected toTRANSMISSION									
4										
5	Summer On-Peak Demand Charge									
6		All KW	11.96	25,145	300,729	15.2846	25,145	384,326	27.80%	1.13%
7	Winter On-Peak Demand Charge									
8		All Kw	6.81	40,915	278,629	8.7030	40,915	356,082	27.80%	1.04%
9	Economy Demand		1.05	4,030	4,232	1.3460	4,030	5,424	28.19%	0.02%
10	Energy Charges									
11	On-Peak		0.055791	8,668,012	483,597	0.067463	8,668,012	584,773	14.75%	0.91%
12	Off-Peak		0.02841	23,979,232	681,250	0.032359	23,979,232	775,940	3.02%	0.25%
13										
14	Interconnected to DISTRIBUTION									
15	Energy Charges									
16	Summer On-Peak Demand Charge									
17		All KW	12.96	76,718	994,263	16.5626	76,718	1,270,648	27.80%	3.72%
18	Winter On-Peak Demand Charge									
19		All KW	7.81	128,162	1,000,941	9.9810	128,162	1,279,183	27.80%	3.74%
20	Economy Demand		1.05	20,725	21,761	1.3460	20,725	27,896	28.19%	0.08%
21	Energy Charges									
22		On-Peak	0.055791	27,553,933	1,537,261	0.067463	27,553,933	1,858,881	14.75%	2.89%
23		Off-Peak	0.02841	90,509,804	2,571,384	0.032359	90,509,804	2,928,793	3.02%	0.93%
24										14.73%
25	Present Revenue from Billing Units and Present Rates				7,899,251			9,495,502		
26	Revenue adjusted for Spread Factor				7,858,849			9,446,935		
27	add rider adjustments ¹									
28	Adjustment for Fuel Costs		0.00300086	150,710,981	452,263					
29	Energy Efficiency Rider		na	150,710,981	0					
30	Energy Efficiency Rider (Energy Efficiency)		0	150,710,981	0					
31	Energy Efficiency Rider (Demand Response)		0	150,710,981	0					
32	DSM Revenue Credit Adjustment Rider		0	150,710,981	0					
33	Pension Costs Rider		0	150,710,981	0					
34	Nuclear Insurance Reserve Rider		0	150,710,981	0					
35	Equals Annualized Present Revenue				8,311,111					
36										
37	Proposed Revenue(using spread factor)							9,446,935		
38	Revenue Increase (Decrease)							1,135,824		
39	Percent Revenue Increase (Decrease)							13.67%		
40	Total Bills				696		580			
41	Total KWH				150,710,981		150,710,981			
42	Spread Factor Calculation									
43	Unadjusted Present Revenue				7,899,251					
44	add estimated price variance from Per Book ²				(184,647)					
45	less Credits (DSM)				0					
46	add FPP variance ³				0					
47	Equals estimated booked revenue				7,714,604					
48	Reported Booked Revenue				7,498,337					
49	less booked rider adjustments ¹				176,809					
50	equals reported booked revenue(base rates)				7,675,146					
51	Spread Factor (Reported to Estimated)				0.9949					
52	Notes									
53	¹ Rider adjustments applicable to schedule									
54	(for a summary also see PSCSC Docket 2009-226-E, Order 2010-79)									
55	² Price variance is the difference in as billed and present revenue due to rate changes during the test year									
56	³ FPP variance is the difference between rate revenue and the fixed payment for customers on Fixed Payment Plan									
57	(Per Book includes this difference)									